

Deepworker Tracking Instructions

What we want out of this system:

- 1) View relative sub track and position in relationship to the ship
- 2) Record sub tracks so they can be replayed
- 3) Save lat/long sub tracks generated by WinFrog
- 4) Send the lat/long sub tracks to shore so that the GIS/Web team can share them with the world
- 5) Record transects or other important lat/long fixes for future missions

Basic overview:

First DiveTracker must be up, running and tracking. This system generates the raw position of the sub in relationship to the ship. Second, DiveTracker must up and communicating with WinFrog. WinFrog calculates the sub position in lat/long coordinates. Third, WinFrog must be receiving a DGPS and Heading signal from the SCS system. Fourth, we want to save sub tracks in both DiveTracker and WinFrog. Also, we would like to send a video signal to the bridge so that they know where the sub is as well.

Software Note:

Both software applications can be running all the time. Minimize them if they are in the way. You can leave them running.

Hardware Note:

Unfortunately, the machine sleeps after extended inactivity. You may have to wait a minute or two for the system to spin up. If after a few minutes, the system is still frozen, run the task manager (CTRL-ALT-DELETE) then close it without doing anything else. This seems to immediately wake the system.

OPERATING INSTRUCTIONS

A. Turn Bridge monitor on

Step 1. Turn ViewSonic 17" video monitor on. It is the rather large computer monitor on the bridge just to the right and in front of the wheel.

B. Desert Star Instructions

If you start DiveTracker from Scratch-

Step 1: Make sure cable is connected from Desert Star Tracking "box" into COM 3. Ask Nuytco for help.

Step 2: Make sure Desert Star Tracking "box" is ON and set to TRACK. Ask Nuytco for help

Step 3: Launch DiveTrackerII_v4.

Step 4: Make sure input is on COM3

Step 5: Make sure output is on COM4

If DiveTracker is Running-

Step 6: Click on START TRACKING NOW before a dive is started. Ask Nuytco for help

Step 7: Click on the RED RECORD button at the bottom of the screen. Use naming convention set up by Nuytco (e.g., 4 25 Howard)

Step 8: Set the SCALE to 100feet or greater

Step 9: Watch DeepWorker move

Step 10: STOP TRACKING when the dive is complete

C. WinFrog Instructions

If you start WinFrog from Scratch-

Step 1: Launch WinFrog

Step 2: Look at the VEHICLE WINDOW in the lower half of the screen. Click the VEHICLE button to change the name to McArthur. Within 5-10 seconds you should see black numbers for Lat/Long position. If the numbers are yellow with asterisks then you are NOT receiving DGPS and Heading coordinates from the (ship) SCS system. Ask Kay for help. She may have to restart the SCS string.

Note: while at dock the lat/lons may be yellow. This is normal as the SCS system may be off.

Step 3: Switch vehicles again by clicking on the VEHICLE button so that you see the name DeepWorker. The coordinates here should also be in black. The numbers will be yellow with asterisks if you have not started tracking in DiveTracker.

If WinFrog is running-

Step 4: Click the START EVENT button at the top of the screen.

Step 5: Click the STOP EVENT button when dive is complete. Give the file a name when requested use the same format as you did for DiveTracker (e.g. Howard 4_25_99)

Step 6: If you can't start EVENTING because the buttons are grayed out, go to CONFIGURE then EVENTS on the VEHICLE window. Make sure MANUAL start radio button is checked. Note: you can only configure EVENTS for the VEHICLE named McArthur.

Step 7: Optional choose a nautical chart in the CONFIGURE GRAPHICS. See attached list for charts.

D. Send track information to shore

Step 1: Copy ".raw" data file from NAVDATA/McArthur directory on the C: drive. There should be several sub-directories under the McArthur arranged by date and time. These subdirectories and the files within them are automatically created and named by WinFrog

Step 2: Copy the ".dat" data file from the NAVDATA directory. There will be one for each dive named once you STOPPED EVENTING. (e.g. Howard 4_25_99.dat)

Step 3: Send these two files to shore. Put them in a folder/directory so we know what they are (e.g. Howard 4_25_99)